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ABSTRACT

A population education curriculum for elementary school students in Ghana is presented in this study, along with related background information and a review of literature. Starting from a global perspective, chapter 1 reviews efforts to provide population education in schools, describing the current state of population education in Ghana. In addition, the first chapter differentiates the domains of population education and family life education, describes traditional family life education practices, and points out the need for formal family life instruction in Ghanian schools. A rationale and general objectives for a Ghanian population and family life elementary education curriculum are also presented. The literature review provided in chapter 2 includes brief descriptions of family life education programs in several African countries and a few countries outside of Africa. Advantages and disadvantages of alternate approaches to curriculum planning are also indicated. The curriculum is offered in chapter 3. General and specific objectives, concepts and subconcepts, possible sources and relevant domains of knowledge, as well as suggested learning activities, evaluation activities, and related generalizations, are provided for four grade levels (Middle Forms I through IV). Diagrams indicating the new organizational structure of Ghanian education are appended. (RH)

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African Studies in Curriculum Development & Evaluation

General Editors:

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No. 20

PATIENCE A ADO:

THE DEVELOPMENT OF POPULATION EDUCATION CURRICULUM FOR ELEMENTARY SCHOOLS IN GHANA

AOS Project

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This research project was undertaken as part of a training programme jointly organised on behalf of the African Curriculum Organisation (ACO) by the Kenya Institute of Education (KIE), the University of Nairobi, and the German Agency for Technical Cooperation (GTZ).

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TO

MAMA, MAAME AND KOFI,

BUDDING AND FUTURE ADOLESCENTS

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CHAPTER I

PURPOSE OF THE STUDY

A. INTRODUCTION

Interest in population matters dates back to ancient times, long before Malthus wrote his famous essay on population in 1798 which marked a turning point in the study of population. Ancient philosophers like Confucius, Plato and Aristotle had written extensively on various aspects of population and its importance in the general welfare of the society. Since those early times, writers have been concerned mainly with high rates of population growth and its implications for the prosperity of the society. Other writers have been concerned with specific population related issues such as migration, mortality, marriage, divorce and abortion.

Population education per se has only come into prominence as a distinct discipline within the subject of "population" in the last few decades. It is basically an educational process designed to help people understand the nature, causes, and consequences of population events. It is directed at people as individuals, or as members of groups, as decision-makers within their families, as citizens within a community, as leaders within a society and as policy-makers within a nation. Everybody is a

population actor, making population related decisions throughout life. The sum of the population related decisions made by individuals, shapes the nature of the population forces (fertility, mortality, migration) which go on within a society and which then affect the social, political and economic forces. Population education seeks to make members aware of these interrelationships and the implications for the general well-being of the society as a whole.

Within the context of Ghanaian society, population education traditionally tended to lay emphasis on sex education. With the gradual break down of the traditional rural order, the traditional mechanisms for family life education have either broken down or are being ignored. There is therefore the need to fill the vacuum with more modern mechanisms.

Evidence from traditional socialization processes shows that a high premium was placed on prolific child bearing. Such traditional pro-natalist values are no longer consistent with the needs of modern society. Every government aims at achieving rapid economic development as a means of improving the quality of life of its peoples, and this commitment makes it imperative to create an awareness among all sections of the population of the factors which are likely to impede the successfu'

achievement of this basic objective, such as the interrelationship between population factors and economic development. The young generation has a particularly crucial role to play in this respect. Already the educational system of Ghana is hard pushed to cater adequately for the growing needs of to-day, in terms of the number of schools, teachers and other resources.

Since elementary school pupils are a vital link in the process of transmitting new ideas between tradition and modernity, it is hoped that the introduction of population education at the elementary school level will help to generate greater interest and understanding in Family Planning Programmes.

B. POPULATION EDUCATION WITHIN THE SCHOOL SYSTEM

The usual practice of educators when they are asked to tackle an emerging social problem, is to develop new and specific educational programmes. As a result of growing public concern about human sexual problems, out-of-wedlock pregnancies, and the increase in sexually transmitted diseases among young people in some industrialized nations, there was, in the early years of the twentieth century, a call for programmes of sex education directed at the youth. In the sixties and seventies a number of developing countries also introduced sex education

programmes for the same reasons.

An appraisal of family planning activities in developing countries revealed that family planning programmes were not at first always successful as had been hoped and planned. Some programme organizers claimed that the failure was due to misdirected effort. They argued that educational efforts aimed at adults had to overcome deeply - entrenched traditional learnings and beliefs, and therefore suggested that younger age groups might be more appropriate targets. About the same time in Asia, development planners and decision makers became aware of the need to educate the public about social and economic growth and population phenomena. They saw the school as the institution which could effectively achieve this work. From then on educators became aware of the need to include population and family life education in the school curriculum. School programmes of population education hence began to emerge.

Experimental programmes in Latin America started at the University de Valle in Cali, Colombia in 1967 and at the national training centre in Chile in the late sixties. The first national school programmes developed in Asia, was introduced in India in 1969. The Phillipines and the Republic of Korea followed in 1970. (19)

The African Social Studies programme in Nairobi, Kenya is developing a population programme to eliminate the vacuum caused by the non-existence of population education programme which may serve as a model for schools in Africa. It considers that the objective of population education should be to enable students to understand that family size is controllable and that population limitation can facilitate development of higher quality of life within Africa.

For Africa South of the Sahara, the main concern has been to reduce infant mortality and this is stressed through family life education and health programmes. Especially in West Africa the courses are mostly centred in the secondary and higher institutions and involve lectures and informal discussions.

WORKSHOPS ON POPULATION EDUCATION

The United Nations Fund for Population Actitivies (UNFPA) and UNESCO have played an active role in population education activities and have also provided funds for various workshops. In 1970 a major workshop on population education was held in Bangkok which had a great impact. Two workshops were also held in Santiago, in 1970 and in 1971 on sex education. In the same year the UNESCO office in Dakar organized a seminar on Population Education and Development. Population education activities have developed

much more slowly in the Arab States. The first seminar there was held in 1976.

Many of the population programmes have not paid attention to individual family or community decision-making. The approach was at national and global levels. In Asia and other countries, population education was interpreted as sex education and fertility control. Some parents therefore opposed it.

In recent years, increasing emphasis has been given to the need for including population and family life education in the curricula of schools and colleges. The "World Population Plan of Action" expressed the need for population education in the following terms:

> "Educational institutions in all countries should be encouraged to expand their curricula to include a study of population dynamics and Policies, including where appropriate, family life, responsible parenthood, and the relation of population dynamics to socio-economic development and to international relations (19)"

Ghana has been one of the countries to heed this call. In June 1974 the Curriculum Development Unit of the Ministry of Education (later redesignated the curriculum Research and Development Division) conducted a survey in elementary and secondary schools and training colleges. The aim was to seek the views of the heads of the institutions and also to find the knowledge and attitudes of pupils

and students. As a result of the information gathered, a decision was taken to develop and mount a programme on population and family life education in Ghanaian schools. The pilot project started in 1976.

However in terms of content and coverage, the current programme is very limited in population concepts. Not only is the population content very limited but also a wide and important section of the school-going population has been left out. The programme caters for students in the second cycle institutions most of whom are in their late adolescence. The bulk of pupils in the elementary schools who are in their early teens and have started going through maturation processes have been neglected.

In the 1970/71 academic year, out of a total enrolment of 1,479,165 in all schools in Ghana, 1,389,804 or 93.9 per cent were enrolled in elementary or first cycle institutions while only 6.1 per cent were enrolled in post-elementary or second and third cycle educational institutions. (See Table 1) The figures for the 1974/75 academic year are not very different although there is a slight increase in the proportion of students in the post-elementary or second and third cycle institutions. Again out of the total of 1,598,170 enrolled in schools, 93.3 per cent were enrolled in elementary or first cycle educational institution, while 6.7 per cent were enrolled in post-elementary or second and

third cycle institutions. The data show quite clearly that for the overwhelming majority of students, the first cycle education is terminal.

TABLE 1

ENROLMENT TRENDS BY LEVELS: 1970/75

LEVEL	1970/71	1971/72	1972/73	1973/74	1974/75
1ST Level	1,389,804	1,415,801	1,447,205	1,455,029	1,490,667
2ND Level	83,935	88,056	89,865	94,781	99,481
3RD Level	5,426	5,990	6,391	7,466	8,022

SOURCE: Digest of Education Statistics, 1974/1975 Ghana Education Service, Accra.

This project therefore attempts to develop a population education curriculum for children in this crucial age group of between twelve and fifteen years.

THE GHANA EDUCATION SERVICE:

The process of developing a family life education curriculum for schools started in 1971. The Planned Parenthood Association of Ghana's committee on family life education submitted a proposal for integrating family life education into the public school system, through the Ghana National Family Planning Programme to the Ministry of Education. The proposal was not accepted by the Ministry of Education until 1973.

Following the acceptance, a special committee was set up within the Curriculum Division of the Ministry of Education to see to the development and implementation of the family life education programme. The committee's proposals were approved by the National Advisory Committee on Curriculum (NACC). As a result, Curriculum guidelines and its accompanying source book were developed and are being tried in a few pilot second cycle institutions. A few orientation courses have been held for the teachers in the pilot schools.

However, this programme contains very few population concepts. It has only one module on population dynamics. There is therefore the urgent need to create awareness of the population issues facing the country, in the young generation for as one writer ..... said, population education is the school's conterpart of the family planning programme for adults in the reproductive ages.(31)

C. THE FOCUS OF POPULATION AND FAMILY LIFE EDUCATION:

Many writers have given diverse interpretations to population and family life education. These interpretations of course depend on the rationale or felt need that the programme being planned is intended to serve. Some have tried to explain in terms of the needs of the country. Others have defined it as essentially an addition of certain new topics on population dynamics and sex education to an existing

school programme. Many writers and programme developers have however used population and family life education interchangeably, mainly because most of the programmes or curricula developed have been an integration of the two concepts.

Population education is a term which reflects a combination of content from various disciplines. It is a body of knowledge, concepts and theories which describes and attempts to explain the dynamics of human populations and their relationships with the social, cultural, economic, political and biological environments.

In 1970 the Bangkok Workshop realized the need to give population education a formal definition. Population education was then defined as: "an educational programme which provides for a study of the population situation in the family, community, nation and world, with the purpose of developing in the students rationale and responsible attitudes and behaviour toward that situation (19)". This definition has since served as a guide to population education programme developers in various parts of the world.

The content of population education curricula therefore, tend to point to the fact that it is a study of the components of population and how population affects and is affected by several aspects of human life.

Family life education on the other hand includes a study of the development of the individual, his self-awareness, understanding of others, of sexuality, marriage and parenthood. It is assumed that the knowledge gained and skills developed will enable the individual to cope with social change and also enable him to cope with relationships within his family as well as become a better citizen in the society. At a seminar held in Lesotho in 1978, family life education was described as a continuous process by which every individual learns to prepare him or herself for adult life, as a member of a family, community and nation (27).

The International study of the conceptualization and Methodology of Population Education (ISCOMPE) also gave a similar definition except that this time emphasis was laid on the role of family members instead of on individuals. The definition states that family life education develops the ability of family members to play their roles effectively; it also enhances communication between family members and improves the quality of family life (19).

The primary difference between population education and family life education therefore, is that, the former deals with interrelationships between individuals, family, community and nation. It also deals with ways that population phenomena impinge upon the welfare of all these units of society, while the content of family life education primarily deals with intra-family relationships and the family's social and

economic interactions.

D. POPULATION AND FAMILY LIFE EDUCATION IN GHANA

Family life education has been an active element of informal education in traditional Ghanaian Society. It is a process that begins almost at birth and continues throughout life. Young girls are taught how to take care of the home, cook meals and care for their younger siblings. Boys are on the other hand taught the duties and responsibilities which go with manhood.

Traditional forms of preparing young people for adult life have always existed. Among almost all the ethnic groups puberty rites for both boys and girls are obligatory, although the rites for boys are not as elaborate as those for girls. For example among the Shais "Dipo" is the female initiation rites instituted for girls.

Dipo has a very great significance in the life of a Shai girl. Some years before 1894, dipo was a protracted and wearisome ceremony. Girls stayed for long periods in a state of isolation. This period of seclusion was a time for rigid female education and training in home craft, baby-craft, house-wifery and other female responsibilities. The time of seclusion was later reduced to three months and now lasts for between three to six weeks. The traditional council is still considering reducing this further to allow modern girls in school to undergo dipo rites.

"Dipo" has positive and negative sanctions. Pre-dipo pregnant girls were expelled from the ancestral home. Today they are not expelled but they suffer many disabilities. They are still social outcasts. On the other hand girls who wait to have dipo rites performed for them, and are properly initiated into adulthood stand the chance of getting better suitors. Such girls have expensive gifts showered on them and this induces other girls to wait for dipo. Not too long ago it was a ceremony without which one could not have a decent and successful marriage.

Boys are initiated into the community very early in life through circumcision. To the Shais circumcision is obligatory and an ancient and sacred rule. If a boy or man is not circumcised he is debarred from approaching the precints of sacred groves and shrines and he is also ridiculed. Parents, sometime ago, would not give their daughters to an uncircumcised man "momlototse" to marry(23).

Boys demonstrate reaching manhood by efficient farm making and being responsible. They are given pieces of land and until recently a gun by their fathers. On the other hand bad and wayward boys are refused gifts.

The Ashantis are also an ethnic group that have a very rich culture and an inbuilt socialization process as far as

family life education is concerned. In Ashanti matrilineal society, survival of the lineage depends on its female members, therefore barreness is a disgrace, and prolific child bearing is honoured. In Southern Ashanti a public ceremony is held for couples who have ten living children. Parents of large families and mothers of twins and triplets are held in high esteem. The ideal of every Ashanti is to have as many children as life permits, therefore impotence in men is also derided.

Since Ashantis cherish the above values, to them the value of girls is inestimable. Right from childhood girls are drawn more to their mothers and are taught feminine manners and occupation, how to be serviceable and submissive to their fathers, brothers, and older persons. Boys also drift to their fathers from infancy and are treated sternly, and taught duties to prepare them to shoulder responsibilities looking after their mothers, sisters and future wives. They are forbidden to engage in what is termed womanly activities, and unless it is absolutely necessary a boy must not cook, sweep, or eat with women. Boys are taken to social functions like funerals to observe their fathers as to how to comport themselves on such occasions. There is gradual introduction to adult status and the responsibilities and obligation of adulthood without formal ceremonies. The father can choose any time to present his son with tools and instruments of trade.

In view of the indispensable role of girls as a source of "manpower" in their matrilineage, it is understandable that their entry into womenhood should be marked by complex ceremonies entailing much preparation and rituals. The rituals take between six to seven days to complete. No instructions are given during the rites yet much knowledge is gained from the songs and ceremonies as a whole without formal tutoring. The girl however comes out a much more experienced person than she entered them.

Girls are required to remain virgins until after the performance of the necessary rites. Parents are therefore concerned about their immoral girls and are therefore restless till they have the rites performed for fear of bringing disgrace and curse of ancestors. Some parents insist on absolute abstention from pre-nubile love games and see to it that their daughters go to bed early and severely warn them, scold and at times beat them if they associate too frequently with boys. Secondly a girl who is always found in boys' company finds it difficult to get a husband. Ideally a girl or boy must marry the first lover. A girl is frowned upon if she changes partners often(24).

With the advent of christianity and colonization, many of the useful past customs and traditions are fast disappearing. In the christian sections of towns and villages

usually referred to as "Christian quarters" puberty rites have gradually been replaced by church confirmation. Some other rites disappeared or were not replaced by valid ones because they were considered pagan or uncivilized rites. Today an even greater vacuum has been created due to the rapid pace of modernization with the resultant breaking up of the extended families and mass migration into cities. The school which has replaced the family and other traditional organs in the preparation of young people for life has had to take on the preparation of the young for family life.

In Ghana many organizations have demonstrated that the education of the child is everybody's concern some of the organizations that have actively engaged in family life education activities are the Christian Council of Ghana, the Planned Parenthood Association of Ghana, the National Catholic Secretariat, the National Council of Women and Development, the Ghana Home Science Association, the Ministry of Health, the Ministry of Labour and Social Welfare the Information Services Department, the Department of Rural Development and the Institute of Adult Education (26). Others are the Red Cross Society, the National Youth Council, the People's Educational Association, the Y.M.C.A., the Y.W.C.A. and various churches many of which belong to

the christian council of Ghana. The National Family Planning Secretariat, co-ordinates the efforts of all these agencies.

Special mention must be made here of the exceptional contribution made by the Ghana Home Science Association (H.G.S.A.) in the field of population and family life education. The association has been interested in family planning and population activities as they relate to family life education, and has a joint project with the American Home Economics Association (AHEA) sponsored by the International Family Planning Project. In 1973 AHEA conducted a survey in Ghana to identify areas where population/family planning/ family life education concepts could be integrated. The results were very encouraging. Since then GHSA has published several articles related to family life education, and GHSA members have participated in many workshops and seminars locally and outside the country to develop prototype materials for teaching in schools and out-of-schools programmes. The GHSA actively supported the second interdisciplinary family research seminar sponsored by the Institute of African Studies, University of Ghana, Legon in 1972, at which the disciplines of sociology, demography, economics, law, social welfare and family planning were represented. Research papers related to family systems, family culture and population problems

in West Africa as they relate to the family were presented.

Because of its focus on the improvement of the quality of living favoured by the small family norm, for the family unit, the GHSA has been stimulated to co-operate with the NFPP in the improvement of the quality of life for all Ghanaians.

E. RATIONALE FOR POPULATION AND FAMILY LIFE EDUCATION CURRICULUM IN ELEMENTARY SCHOOLS IN GHANA

Much thought has been devoted by many individuals and organizations to the need for providing population and family life education for the younger generation in the schools and colleges and also for those outside the formal educational system. Several seminars have been held to consider various aspects of this topic among specialists in family planning work and educators.

Simmons observes that:

> "Population education holds promise not only as a means of diffusing information about population problems more pervasively in a given country than can be done by the channels ordinarily available to family planning programmes, but as a means of bringing about the desired changes in attitudes, behaviours, and values in the next generation (19)."

In March 1969 Ghana became the first country in West Africa to adopt a population policy which was stated thus:

> "The population of Ghana is the Nation's most valuable resource ..... The protection and enhancement of its welfare is the Government's first responsibility. When that welfare is threatened the Government must act. The welfare of the nation is now endangered by a subtle almost imperceptible demographic change..... Unless birth rates can be brought down to parallel falling dealth rates, Ghana's population will climb at a rate dangerous to continuing prosperity and the children of the next few generations will be born into a world where their very numbers may condemn them to life-long poverty (11)."

Ghana has an area of 239,460 square kilometers. Cocoa, timber, industrial, diamonds, bauxite, manganese dioxide, coffee and gold are some of the major exports (12).

By tropical African Standard Ghana is highly urbanized. In Ghana a locality with a population of 5,000 or more is described as a town or an urban centre. In 1948, 12.3 per cent of Ghana's population lived in urban settlements. In 1960 this percentage figure reached 23.1 and by 1970 28.9 per cent. Presently the urban population is 32 per cent while the rural population is 68 per cent.

One of the most significant features of Ghana's population is its rate of growth. In 1921 the country had a population of just over 2 million; by the first quarter of 1960 the population had increased to 6.7 million, thus it more than tripled in the short period of 40 years. The population continued to grow and by 1970 it had reached 8.5 million. The present size is estimated at 11.6 million

In a period of 56 years the population will therefore have quintupled.

Another significant feature is the rate of growth. Although data for early part of the century are not very reliable, the recorded figures indicate that since 1921, Ghana's population has been growing at a relatively high average annual rate of about 3.2 per cent between 1921 and 1931, 2.8 per cent between 1931 and 1960 and 2.7 percent between 1960 and 1971. At the moment the rate of increase is estimated at about 3 per cent. Recent estimates show that the growth rate will climb to 3.2 per cent between 1980/1985 an increase which is largely attributable to decline in crude death rates.

Ghana's high population growth rate can be attributed to a number of factors, that is high fertility rate, declining mortality rate and in flow of immigrants from neighbouring African countries. Migration has however diminished considerably in recent years as a result of the Aliens Compliance Order in the late 1969 and the recent economic recession. However the factor that is likely to affect it more is the age structure. The most striking feature of Ghanaian population is its extreme youthfulness. Presently the proportion of children under 15 years is more than 45 per cent and there are indications that the population

is becoming more youthful. This poses a problem of high dependency rates. Projections show that the population would become much younger by the year 2,000. This can only be saved by a fairly steep decline in fertility in the immediate future for instance a reduction of the proportion under fifteen years to less than 40 per cent (18).

Throughout the world pregnancy and child bearing are occurring at younger ages than in the past, resulting in adverse health. This is mainly due to the trend toward earlier menarche as a result of improved nutrition. Today girls everywhere are sexually mature at an earlier age than previous generations. For example, in Europe the mean age at menarche has decreased by about 10 months each generation. According to Parkes, 50 per cent of the girls in 1845 were menstruating by age 15, while 50 per cent in 1962 were menstruating by age 12 (1). Similar decreases have been found in age at menarche in the U.S.A. and Japan. The table below shows trend in age at menarche in different parts of the world reported by different authors.

TABLE II

ESTIMATED AVERAGE AGE AT MENARCHE AND REPORTED TRENDS IN SELECTED AREAS, 1970-1976.

Author & Date	Ref. No.	Country or Region	Estimated Average Age at Menarche (in years)	Reported Trend
Akhter, 1974	19	Bangladesh	13	Decreasing
Akingba, 1974	20	Nigeria	13-15	NR
Asayama, 1974	25	Japan	13.2	Decreasing
Devadas, 1975	61	India	12.9, 14.3*	NR
Kumekpor, 1973	124	West Africa	NR	Decreasing
Masse, 1975	142	Hong Kong	12.7	Decreasing
Park, 1974	174	Republic of Korea	14.4	Decreasing
Parkes, 1975	175	Europe	12 **	Decreasing
Sinnathuray, 1974	212	Malaysia	12-14	NR
Vis, 1975	246	Rural Central Africa	15.16	NR
Widholm, 1971	248	Finland	13.2	Decreasing
Zacharias et al. 1976	260	U.S.A.	12.8	Stable

NR - Not Reported

*Urban rural

**Fifty per cent menstruating by age 12.

Source: Population Reports: Series J. Number 10 July 1976.

Seven out of the twelve countries reported decrease in age at menarch, four did not report and one remained stable.

In the United States the number of adolescent pregnancies had been rising until the last few years; national concern rose perhaps even more rapidly. Evidence of this concern is an increasing number of newspaper and magazine articles, television programmes, federal legislation and administrative initiatives and special reports issued by organizations in the education, child health and family planning fields on the subject. A number of these reports have referred to the "epidemic" of teenage pregnancy. (See for example, New York Times, 18th June 1978. "The epidemic of teenage pregnancy)" (15).

This phenomenon is not confined only to the developed countries, but constitutes a serious problem in many developing countries including Ghana. The need therefore for a population education programme directed at this particular population segment is obvious.

In the developing world, rates of neonatal, infant and maternal mortality also appear to be higher for teenagers than for women in their twenties (8). Nortman (8) found in eleven high-mortality developing countries that death rate for women under age twenty was fifty per cent higher than

women aged twenty to twenty four. Chui (8) also found out in five Latin American countries that death rates among infants of adolescent mothers were higher than among children of mothers in their twenties. The increasing rural-to-urban migration in the developing countries also creates a problem. Young women and men continue to leave home thus causing a disruption of the traditional family patterns and an increase in the illigitimate early births (8). Jekel and Klerman (15) discovered that the proportion of live births that occurred to women under 18 increased from four to eight percent between 1961 and 1973, and the proportion occurring to those under 20 increased from fourteen to twenty per cent.

If one considers that adolescents comprise about twenty to twenty five percent of the total proportion of developing countries (19) then potential demographic impact of pregnancies among this age group is enormous.

In addition to the medical hazards, teenage mothers suffer educational and income deficits that increase their likelihood of dependence. Whether she is married or not the Pregnant adolescent must quit work or leave school. Her career options and prospects for future earnings thus become limited.

In a developed country like the United States, the need for special services for adolescents was widely recognized when it was discovered that teenage fertility constituted nearly twenty percent of total births (8). Unfortunately, this experience of providing contraceptive services to teenagers in the developed world is relatively new and not easy to export. That is why it is necessary to introduce population education programme to children in their early teens in a country like Ghana where about fifty percent of the population is below eighteen years. The impact of teenage marriage and childbearing on the population, production, income, dependence and socio-economic development will be disastrous if no programme is developed to check it.

F. OBJECTIVES OF THE PROJECT

One of the many frameworks for population education and its allied subjects, proposes that if proper attention is paid to the individual and family, problems at the community and national levels will take care of themselves.

The major aim of this project therefore is to develop a population education programme which if adopted, will help to create awareness among the young adolescents of the health hazards that adolescent pregnancy and childbearing pose to

themselves and their infants. They will also be aware of the socio-economic strains that they might have to face if they became pregnant prematurely. They will appreciate the problems and difficulties that a young and yet a large family might have to face in the rearing of its members, and, finally the total national population and on government expenditure.

It is hoped that the children of today who receive such fundamental knowledge will find it most meaningful in personal terms, when on achieving marriage and parenthood, they have to make decisions as to the planning of their own families.

In order to achieve these objectives the programme will deal with issues like;

1. Processes of maturation,
2. Human reproduction,
3. Adolescent pregnancy and health problems of adolescent mothers and their children,
4. Problems associated with child bearing,
5. Basic instruction in population dynamics,
6. Relationship between family size and quality of life,
7. Significance of population characteristics,
8. Policies for social and economic development and
9. Knowledge of population policies and
10. Family planning programmes in Ghana.

CHAPTER II

REVIEW OF LITERATURE

The first attempts at population education were by the population commission of Sweden which in 1935 became concerned with the declining rates of birth in that country. Measures were taken to encourage marriage and childbearing particularly in the younger age groups. Steps were also taken to take care of the social and economic welfare of the people. A number of out-of-school and formal education programmes were introduced. However the scheme met with little success in the formal educational system.

In 1943, the demographers, Lorimer and Osborn (19), in an article for the National Educational Association of the United States, suggested that population education should be considered for schools in the United States. At the time the population of the United States was 135,000,000 and there was the fear that if birth rates continued to decline, the dwindling population would create problems. They therefore hoped that if the schools were involved in population education, a greater awareness of population matters would be created. Some twenty years later the perception of the problem changed. This time the concern had shifted to the phenomenon of rapid population growth in both industrialized and developing countries.

The demographer Philip Hauser (19) urged the inclusion of population content in the United States school curriculum to combat this problem.

Both population decline and population growth, at different times and in response to different conditions, have thus been offered as justification for population education in the schools. However, in neither case was public concern acute enough at that time to oblige the schools to take note of these admonitions. No apparent modifications in curriculum were made then.

Until the mid-seventies, the term population education was used to cover a wide range of activities and programmes. This naturally created some confusion in the minds of the public, and at the same time contributed a great deal to the general lack of clarity or unanimity with regard to the main focus and objectives of population education.

In an effort to remedy this situation and further stimulate greater interest in population education, a conference was sponsored by UNESCO, UNFPA and other interested institutions and organizations in 1974 at Bucharest. Among other things discussed, the conference sought to solve the misunderstandings which had been grafted onto the population issues.

SOME NATIONAL ACTIVITIES

Since these early efforts to include population education in the school curricula, many countries both developed and developing have seriously considered the issue.

India is one of the developing countries which is seriously promoting population education for its younger generation. Basically the curriculum deals with population and its growth, its causes and its trends, and major factors affecting it. It also involves studying the influence of population trends on various aspects of life, social, cultural, economic and political, and in particular its close interaction with the whole process of development which focusses on raising the standards of living. The curriculum also explains how scientific development helps to control famine, disease and untimely death, and similarly, control over unplanned births also (30).

Another issue of significant importance in the curriculum is the effect of over population on individual and family life. It also stresses that in order to preserve the health of the mother, the welfare of the children, the economic stability of the family and the future prospects of the younger generation, it is desirable to have not more than two or three children.

Mexico has a massive population and sex education programme in the national school system. Their main focus has been the primary grades (21). Efforts to introduce sex education in schools in the 1930s had met with strong opposition and had therefore been abandoned. Elementary schools are the prime target for inculcating new attitudes because in Mexico elementary school is terminal for most of the children. The text books try to analyse the national population problems, comparing Mexico's interest with those of the third world and exhort readers to act on population and other issues in a manner that will make Mexico a better place to live.

Text books for the natural science describe in detail processes of biological reproduction through plants and animals. Fourth grades texts describe Mexico's population growth since 1900 and point out; "This means that constantly services are needed like houses, water and schools which are not easy to provide. For this reason many families prefer to have few children. Parents ought to think well how many children they are going to have. This is called responsible parenthood". The sixth grade books which are graphically illustrated, discuss puberty, the processes of human fertilization, and embroyonic life and birth.

Very recently themes on sex education have been introduced into the secondary school curriculum and a text on

population and sex education is planned for secondary school teachers.

In July 1978 a family life education seminar was held in Lesotho (27). The main objective of the seminar was to develop family life infrastructure in Southern Africa, and also to bring teachers' organizations and other associations dealing with family life education together thus raising the quality of life for the people of the region.

A pre-seminar survey established that there were very few opportunities for the youth to obtain information about family life education. Students are not taught how to cope with their maturation and to make rational decisions about their reproductive behaviour. It was also discovered that, opportunities for them to discuss policies and programmes in fields affecting their personal and family lives are scarce. Teachers are often ill-equipped to be of much help because of their limited training. Also traditional beliefs and attitudes towards instruction in some areas of family life education were impediment. Participants therefore resolved to find ways of identifying and meeting the needs through suitable programmes. It was observed that it was only through such means that young people will be able to both improve their own lives and make a positive contribution to national development.

In Ghana a number of institutions have been concerned about the teaching of family life education in both formal and non-formal institutions. In 1961 a committee on Christian Marriage and Family Life was formed by the Christian Council of Ghana in an attempt to deal with increasing rate of divorce, moral laxity and family instability. The committee's work focuses mainly on preventive and remedial measures, family planning services, family life education and counselling.

The PPAG of Ghana has also been actively involved in family life education programmes. In 1969 it established a committee made up of representatives from the Committee for Christian Marriage and Family Life of the Christian Council of Ghana, the Ghana Youth Council, the then National Union of Teachers the National Teacher Training Council, and the Ministry of Education. The Committee submitted a proposal through the Ghana National Family Planning Programme (GNFPP) to the Ministry of Education to consider including family life education in the school curriculum. Now using an approved PPAG syllabus, family life education programmes have been tried in over forty schools. The P.P.A.G. has a youth club for boys and girls where family life education is carried out in addition to other activities like cultural displays, back-yard gardening, handicrafts and farming (26).

THE NATIONAL CATHOLIC SECRETARIAT

The National Catholic Secretariat has also been engaged in family life education for a long time. It conducts pre-marital and marriage counselling. The Catholic Youth Organization (C.Y.O.) organizes seminars which deal with marriage and family life. It also focuses attention on the needs of out-of-school youth.

THE GHANA NATIONAL ASSOCIATION OF TEACHERS (GNAT)

The G.N.A.T. has identified family life education as one of its priority areas in the newly established Professional Development Department of the Secretariat. It includes family life education in its leadership training programmes. The staff also actively take part in family life education programmes and seminars in Ghana and overseas.

THE GHANA NATIONAL FAMILY PLANNING SECRETARIAT (GNFPS)

The G.N.F.P.S. has trained some staff of the national radio and television broadcasting corporation to introduce family life education into the media, through interviews, drama and documentaries.

The National Council on Women and Development (NCWD) which is the advisory body on all matters relating to women, monitors and collates the work being done in family life education. It has given attention to family life education

during many of its seminars and workshops. It has also expressed a strong concern for including inter-personal relationships, marriage and psycho-sexual development in the formal school curriculum at all levels.

A variety of strategies has been used in the development of programmes of population education at national and sub-national levels. For example, in order to stimulate national effort, Jamaica, Ghana, Togo, Nicaragua and Venezuela created programme interest through national seminars. Other national programmes like those of Thailand, Sri Lanka, the Philippines and El Salvador, have strengthened their skilled human resources through scholarships and internal training programmes.

Korea has attempted an integrated infusion of population education into all levels of the formal education system, and has also given attention to out-of-school programmes. In 1973, UNFPA provided financial assistance to the Central Education Research Institute (later the Korea Education Development Institute) to develop instructional materials in population education for grades 1 to 3. A master plan prepared for population education has three components: population education in Elementary and Secondary Schools, population education in Colleges, and population education in the out-of-school sector (10).

Sri Lanka has introduced population education into upper primary and secondary school curriculum. With financial assistance from UNFPA, materials were prepared for grades 6 to 9 and tested grade by grade for feed back and appraisal. A number of teacher educators were trained to assist colleagues in the task of implementation. Curriculum materials were also prepared for a course to be offered in teachers colleges.

In some African countries, more modest beginnings were made by reviewing what is already occurring in schools, or by developing prototype programmes and materials for sub-national trial. Although detailed information on the status of population education in sub-Saharan Africa is not easily available, the overall aim of population education in Africa is to contribute to national development. The following is a sample of population education, or population education-related activities in these countries.

BENIN

A project on population and sex education was initiated by UNESCO in Benin in 1976. The project was aimed at establishing a new school to support the government to train professionally qualified people in the field of population and sex education. Additionally, it was to help participants to contribute to the solution of their individual and collective problems.

ETHIOPIA

In 1973, the Ethiopian Women's Association developed an integrated family life education programme and services for under-educated women and men. The programme dealt with family planning, health, nutrition, agriculture and literacy.

GHANA

There is a project which seeks to strengthen the competence of the University of Ghana in the various disciplines involved in the study of population dynamics and implementation of family planning programmes including their relationship to health, economic development, food, land utilization and environmental protection. The programme was established in 1972 with the help of the University of North Carolina. The programme has generated awareness of population issues at the University and to some extent outside the University. It has educated students in population studies and helped in developing a better curriculum for population studies and stimulate research. The programme also has close co-ordination with the Ghana National Family Planning programme.

The American Home Economics Association's International Family Planning Project, funded by U.S. AID has also motivated Home Economists to provide population education and family planning information as an integral part of the educational systems (formal and non-formal). They have used a variety of informational and educational methods and aids.

In 1975 World Education also assisted the Department of Community Development (Ministry of Social Welfare) to design, implement and evaluate a non-formal family life education programme in three districts: Asamankese, Akim-Oda and Saltpond.

IVORY COAST

UNESCO sponsored three projects in the Ivory Coast. The first was a Family Life Education Programme under the Ministry of Women's affairs. Research is being conducted in topics like prostitution, veneral diseases, family planning, marriage problems and stability, and organizes seminars according to the needs expressed by the women.

The second project involved formal and non-formal population education programmes and was launched as a result of the census held there. Creating awareness of the importance of the population component in the development process among the responsible authorities would be a major aim. Personnel have been trained in Bucharest to help promote the programmes. A national seminar on Population education was held in 1978, and plans were drawn up to train teachers in population education.

The third programme was to set up a teacher training scheme to train professional educators and to establish a permanent flow of information to the people through cooperation with the mass media.

KENYA

Between 1972 and 1977 the United Nation Family Planning Association supported a programme for better living through FAO. It was to broaden the scope of rural extension education, including population factors in the context of food, agriculture, nutrition, home economics and other topics.

The Population Studies and Research Centre in Nairobi is charged with creating a Kenyan institution capable of performing population/family planning training and research required by Government ministries, public and private agencies. One of the project components of Kenya's five-year family planning programme, is to establish a fully operational Population Studies and Research Centre at the University of Nairobi.

From 1973 to 1978 the National Christian Council of Kenya received Family Planning International Assistance finance to stimulate awareness of family life education among religious leaders and clergy. It was later expanded to embrace civic leaders, teachers, parents students and teacher trainees. The Ministry of Education has permitted the development of sex and family life education syllabus for eventual use in the Kenyan school system.

LIBERIA

The American Home Economics Association's International Family Planning Project, funded by U.S. AID was to work with Home Economists to integrate population and family planning components into non-formal as well as formal school programmes.

SIERRA LEONE

The International Labour Organization (ILO) has been charged with integrating population issues including employment questions into national development planning exercises.

The American Home Economics Association also has a project based on the same lines as those described in Ghana and Liberia.

UNESCO has a project for integrating population education into the school curricula, and Pre-service and In-service Teacher Education Courses.

SWAZILAND

Based on the Kenyan experience, the Programme for Better Family Living executed by FAO is aimed at developing and initiating a comprehensive national education approach to rural families within the context of existing agricultural and social development field services, which will enable them to make better plans and decisions about various aspects of family life.

TANZANIA

FAO has initiated the plan for Better Family living also in Tanzania. It aims at raising family living levels.

Another project executed by ILO, concerning population and family welfare education, helps Ujamaa Women leaders to disseminate population and family welfare education components into the curriculum of the Cooperative College at Moshi. The programme seeks to create awareness of the issues among leaders, policy makers and management of the cooperative movement. In 1977, FAO also initiated a project which concerns integration of population/family life education and communication into rural development. It sought to improve quality of life, and create a better understanding of the role which demographic factors play in the relationship between family needs and available family resources.

TOGO

The Togolese government has decided to reform its educational system to include elements of sex education at all levels and knowledge of cultural values related to population in general.

UPPER VOLTA

UNESCO has a project on population education. Two seminars have been organized to create population awareness and also for training educators in the field of population education. The two seminars have led to the production of

a source book on population education which is in an advanced stage.

ZAMBIA

A project has been set up by the ILO to carry out labour and family welfare education and to assist the organized sector in understanding the wider aspects of population and family welfare. These aspects are to be related to labour issues in so far as they affect the working conditions and quality of life.

Finally, there are developing nations which have a wide range of activities related to population education but which have as yet no co-ordinated programme of implementation. Morocco, for instance has expressed the need for a well-structured programme. In 1973 a source book which was produced for the use of science teachers combined various interdisciplinary aspects of demography, family planning and human reproduction. Recently experiments have been made to infuse demographic concepts into geography, civics and islamic education (29).

STUDIES RELATED TO SOME SELECTED PROGRAMMES AND PROBLEMS IN POPULATION EDUCATION

Simmons has reviewed the field of population education as it relates to four basic approaches: sex education, education for family living, population awareness, and basic

value orientation (19). He feels that a direct effort made to change basic values is not likely to be effective and that it may rather generate resistance to whatever the change is being aimed at. He did not say what the indirect approach should be though. He has however outlined a comprehensive approach to a population education programme, including objectives, target groups, institutional arrangements, curriculum content, and evaluation.

Burleson et al (19) state that population education is still without an adequate definition, but that it can be envisaged as a course which include the four components reviewed by Simmons. In the article has been included excellent annotated bibliography of 72 articles, most of which are on population awareness. There are also a resource unit and teaching materials.

Wayland has presented population education as the schools counterpart to the family planning programme for adults in the reproductive age group. He identified as potential content for the programme, basic instruction in population dynamics; human reproduction, health problems of mothers (and children) associated with child-rearing, relationships between family size and quality of life, significance of population characteristics and policies for social and economic development; and knowledge of population policies

and family planning programmes of one's own country. He outlined possible problems in organizing such a programme.

Chauls in his introduction to population education, discusses the role of the school system, contents of the programmes at both elementary and secondary levels, some examples of population education units, non-curricular aspects of the programme and suggestions for research (10). The paper also contained summary information on country surveys, determinants and consequences of population changes, and the demographic transition.

A UNESCO workshop report, focussed on population and family life education defines population as: "an educational programme which provides for a study of the population situation in the family, community, nation and world with the purpose of developing in the students rationale and responsible attitudes and behaviour towards coping with that situation(19).

Report of the workshop indicates that, population education belongs at all levels within the school system and that it should include the determinants and consequences of population changes, demography, human reproduction, and population policies and programmes. A table of programme objectives is spelt out, with topical elaboration on each. Strategies for establishing a population education programme

are developed in considerable detail and research priorities are indicated.

A case report from Colombia (South America) has suggested innovation of existing curriculum to include knowledge about population dynamics instead of developing a new curriculum (10). In the first phase of the research it was found that revised curriculum materials were a feasible means of developing population awareness and that after education exposure on population on attitudes became much more liberal. A vast majority of the students in secondary schools and colleges favoured the teaching of population topics and sex education. During the second phase of the project 150 teachers were educated to understand population dynamics and how to introduce relevant concepts into the curriculum. Six secondary schools were selected as centres for testing the revised curriculum. Favourable comments from the secondary-school students, unanimous enthusiasm of the teachers in service, reactions of the primary and secondary-school teachers in general, interest of the Department of Biology in integrating concepts and the development of a new Master's Degree Programme at the University of Valle indicated success of the programme.

POPULATION EDUCATION & CURRICULUM PLANNING

At a UNESCO consultation on population and family planning education in 1969, Dr. Lawton outlined two main curriculum plans for teaching population and family life

education.

The first approach sees population and family life education as a part of a new subject for which room should be made on the time table. The second approach would be to ensure that the objectives are built into existing subjects such as science, geography, history and other allied subjects.

The task of the curriculum planner then would be to integrate certain topics and make sure they are covered somewhere in the curriculum and also ensure that they are not taught in isolation but that meaningful links are made whenever possible.

Both approaches have their merits and demerits. The first approach will allow the planning of a carefully constructed, coherent, sequential syllabus. Unnecessary overlapping and repetition could be avoided. Secondly the planning of such a syllabus could be the responsibility of one teacher, who can carefully order learning sequences.

On the other hand this approach is criticized because the schools time table is usually already overloaded; secondly such a detailed course would need well trained teachers who could handle the sociological psychological, biological and natural science knowledge required of such a course.

The first advantage of the second approach is that it would not need any major curriculum reorganization. Existing subjects would be used and the time table need not be extensively disturbed. The second advantage is that existing teachers could be used. They would continue to teach their subjects but would be expected to incorporate topics like human reproduction and sex education in biology while geography and history would take care of the population trends to ensure that adequate attention is paid to the integrated programme.

The disadvantages are however that the programme might be fragmented and students would fail to attain the kind of understanding required by the programme. Secondly integration is easy on paper but difficult to effect practically. Thirdly the amount of importance attached to a subject and the attention given to its status or prestige in the school, some indices of status, is whether the subject is recognised as autonomous subject by the school, and also whether it is a compulsory and examined subject.

Whatever the decision, an official allocation of time to "Population education" would help to overcome some of the disadvantages of low-status "non-subject" mentioned above which ever of the methods is adopted the most important principle remains that population education should be seen as

part of the general educational process not as some kind of outgrowth or propaganda exercise. The goals of population education should be the same as those of education in general; rationale, understanding of issues in contemporary life, respect for evidence, respect for persons, and a desire to improve the quality of life. He concludes by saying that in order to achieve these objectives and specific programmes for population education, it is important to raise the general standards of teaching and learning throughout the curriculum.

CHAPTER III

THE CURRICULUM

A. THE FRAMEWORK OF POPULATION AND FAMILY LIFE EDUCATION CURRICULUM

There are several frameworks of population studies for population and family life education. However these frameworks overlap considerably. They usually represent the broad range of ideas that will be needed or dealt within programmes.

There is Population and Family Welfare Framework. In this framework, the primary focus is the micro-level. Population learning, like any learning, should ideally begin close to the individual's own experience before progressing to matters beyond his experience. A second framework is the Population and Socio-Economic Development framework. The framework focuses at the maco-level and assumes that the educational system can and must assist in the definition and attainment of national developmental goals. There is also a Population and Quality-of-life framework. It emphasizes the same issues discussed in the socio-economic development framework with the difference that the quality-of-life approach directs attention to the consequences of population developments on various aspects of life. Another framework is the Population Sexuality and Responsible Parenthood framework.

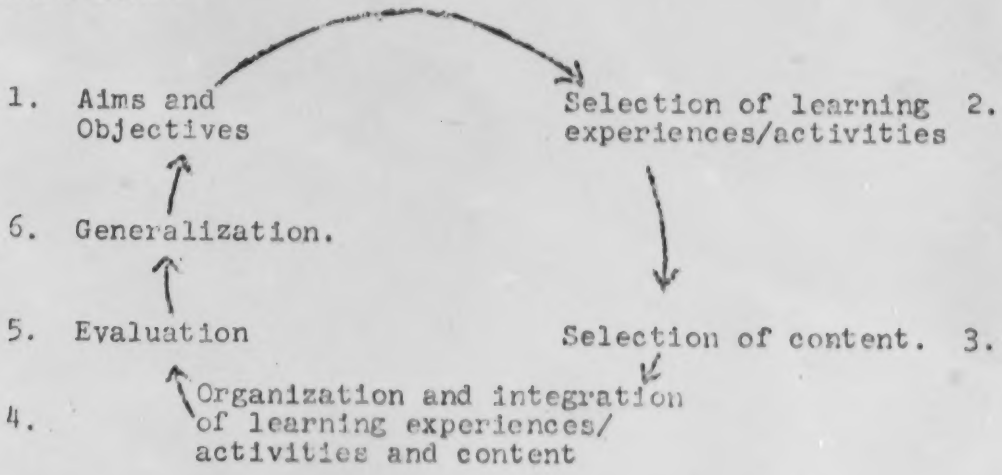
Perhaps this last framework will be more appropriate for the issues to be dealt with in this project and also in view of the target group that the project aims at.

However as explained earlier all the frameworks overlap, therefore the programme will probably, to some extent draw on all or nearly all the frameworks discussed.

B. THE CURRICULUM DESIGN AND TIME ALLOCATION

In order to develop a design for a curriculum, it is necessary to identify its basic elements. In other words for a curriculum to be meaningful, it must be able to indicate what the educational objectives are, what educational experiences are required to achieve the objectives, and how the experiences can be effectively organized. The success of the curriculum process is also a concern.

Wheeler proposes a model representing the process graphically which has been modified by the addition of "generalizations."


1. Aims and Objectives
2. Selection of learning experiences/activities
3. Selection of content.
4. Organization and integration of learning experiences/ activities and content
5. Evaluation
6. Generalization.

The curriculum outline is written under the following headings:

a. General objectives
b. Specific/achievable objectives.
c. Concept
d. Sub-concepts.
e. Possible sources to be used
f. Domains of knowledge which could possibly be relevant.
g. Suggested learning activities.
h. Suggested evaluation activities.
i. Generalization.

The general objectives are the broad aims covering a whole year's course for each form. These have been broken down into specific achievable or behavioural objectives, that students are expected to exhibit at the end of specific units (lessons).

The broad topic to be treated or covered each year is referred to as 'concept'. The 'concepts' have been further broken down into sub-concepts which can be conveniently covered in 'units' or lessons. The 'concepts' and 'sub-concepts' have been carefully selected to suit the level of maturity for each form. They have also been systematically arranged so that there is relevance and continuity in the previous year's and the next year's course.

The purpose of the first year's course is to orient students to the processes of maturation and functions of the human reproductive systems. The following year's work deals with pregnancy and problems associated with adolescent pregnancy. The idea is that the first year's work will prepare students and enable them to better understand pregnancy.

Having studied the demographic consequences of adolescent child bearing, students will better understand population dynamics and problems associated with over population, as well as the government's population policies and development programmes.

Possible sources of materials that can supply the teacher with information on the concepts have also been suggested. These are by no means an exhaustive list. The teacher is expected to be resourceful and consult as wide a source as possible.

Domains of knowledge which could possibly be relevant have been suggested to enable the teacher to consult other areas of discipline which are likely to embody aspects of population. Also where it is not possible to have separate population education periods on the school time-table, population concepts or components can be integrated into the suggested domains of knowledge which already exist on the time table.

Suggested learning experiences are also examples of learning activities that can help in achieving the specific objectives. Again this list is by no means exhaustive. The same goes for suggested evaluation activities. With initiative and creativeness, evaluation sessions can be made more interesting and involving than students having to write test so often.

"Generalizations" are the organizing ideas or understandings that the learner is expected to develop about the "concepts" or content of a lesson. Concepts and generalizations are ideas which are essential and significant to understand a particular discipline as well as those processes by which new knowledge is generated and used in the discipline, which in this case are the learning activities and teaching strategies. Generalizations express underlying truth, have an element of universality, and usually indicate relationships. Generalizations help give meaning to concepts' (7).

TIME ALLOCATION

It is being suggested that each form spends one period of 35-40 minutes a week on population education. Obviously some modules contain more material than can be included in the suggested time allotment. Therefore teachers are encouraged to select and adapt from the wide range of activities at their disposal, those which best meet the capabilities and interests of students.

In conclusion, sections 'C' and 'D' of chapter III are based on the above design. It is hoped that the teacher with all the resources at his disposal will help the students to gain maximum knowledge and develop healthy attitudes.

A WORD OF CAUTION

It is usually difficult and perhaps unadvisable to try pilot programmes in final year classes and more so when the subject is not examinable. In such instances curriculum planners and implementers should try and condense the course to fit in in the programme of the years before the final class, in this case middle forms one to three.

C. THE COURSE OUTLINE

MIDDLE FORM ONE

GENERAL OBJECTIVE

To help students to develop basic understandings and wholesome attitudes about the process of human development, growth and maturational changes which occur during adolescence and to explore some of the personal-social expectancies that accompany these changes.

SPECIFIC OBJECTIVES

At the completion of the module students should be able to 1. identify growth changes which occur during adolescence, accept changes that occur in their bodies, 2. explain factors which influence growth patterns, 3. explain the relationship between human growth, development, and the environment, 4. Understand the norms and values of their localities and make suitable adjustments, 5. Develop healthy relationships with each other.

CONCEPT

Growing and maturing.

SUBCONCEPTS

1. Physical growth.
2. Changes that take place during adolescence,
   a) physical.
   b) emotional.

3. Special problems of girls during puberty.
4. Special problems of boys during puberty.
5. Boy - girl relationship.
6. Patterns of growth.
   a) normal growth
   b) early and late maturation.
7. Factors affecting growth patterns e.g. heredity, improved nutrition etc.
8. Misconceptions about the onset of puberty.

POSSIBLE SOURCES TO BE USED

1. A medical person.
2. An elderly lady (with social status).
3. An elderly man (with social status).
4. A social worker.
5. Student's personal experiences.
6. Books and journals on health and physiology e.g. Teen Guide to Home-making by Barclay Champion-Webster Division Mc Graw-Hill.
7. Your Guide to Health by Clifford R. Anderson MD Oriental Watchman Publishing House. Poona, India.

DOMAINS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

1. Health
2. Social studies (culture)
3. Nutrition.

SUGGESTED LEARNING ACTIVITIES

(1) Use pictures and other techniques to illustrate similarities and differences between boys and girls of the same age and of different ages in relation to aspect of physical growth, such as height, weight, body proportion and muscular development.

(2) Point out that physical growth is the result of an increase in cellular mass.

(3) Ask pupils to list some activities which they now engage but which they were not permitted to do as class six pupils.

(4) Pupils do elementary research. (interviewing adults) as at puberty rites and their significance - report in class.

(5) Pupils prepare questions on ways in which boys and girls mature physically, mentally, emotionally and socially, for visiting lecturer to answer.

(6) Discuss ways to identify that a person is maturing physically, mentally, emotionally and socially.

SUGGESTED EVALUATION ACTIVITIES

Class Work Performance

1. Participation in panel discussions and group work.
2. Oral and written reports (of assignments).

Test and Inventories

1. Students are asked to enalyze the average growth patterns of maturing boys and girls and to apply the principles of growth and maturation to individual variations in growth rate, body structure, and other characteristics through, quizzes multiple choice tests.

2. Summaries of views and beliefs concerning adolescent privileges and responsibilites on class bulletin boards.

Teacher Record and Observance

1. Ratings of student behaviour in group situations.
2. Recorded incidents of student behaviour both in and out of the classroom (and discuss).

GENERALIZATIONS

1. Human development is a sequential process of physical, mental, emotional and social changes which are the result of both growth and maturation.

2. Development is continuous and proceeds in an orderly sequence with periods of acceleration and deceleration occurring in each phase of development.

MIDDLE FORM ONE (CONTINUED)

GENERAL OBJECTIVES

To provide factual information about the reproductive process. To make young people understand their sex roles and develop healthy attitudes towards sex.

SPECIFIC OBJECTIVES

1. At the completion of the module; students will be able to explain menstruation and the menstrual cycle and be able to take care of themselves when it happens to them.
2. name the parts and functions of the reproductive organs.
3. describe the way a new life begins: the initial process of human reproduction.
4. will understand their own sexuality.
5. will develop healthy attitudes towards sex.
6. can list five environmental influences (diseases, drugs, smoking, poor nutrition, and radiation e.g. x'ray) that can be harmful to the developing foetus and explain why they are harmful.

CONCEPT

Growing and maturing (continued)

SUB-CONCEPTS

1. Structures of the reproductive system.
2. Sexual maturity - Primary and Secondary sexual characteristics
3. The reproductive process.

   i. Menstruation
   ii. Ovulation
   iii. Fertilization
   iv. Conception
   v. Gestation
   vi. Child birth
   vii. Menopause

POSSIBLE SOURCES TO BE USED

1. Models and charts of the reproductive systems; stages of fertilization, implantation, conception and child birth.
2. A medical person
3. Books and journals (see previous suggestions)
4. Student's personal experiences about menstruation (if any)

DOMAINS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

1. Health
2. Nutrition.

SUGGESTED LEARNING ACTIVITIES

(1) Description and observation of either chart or model of the structures of the male and female reproductive organs.

(2) A talk by a medical person/teacher on the menstrual cycle, menstrual pains, and personal cleanliness during menstruation.

(3) Explanation and discussion of the functions of the reproductive organs.

(4) Students prepare pertinent questions for lecturers to answer.

(5) A talk by a medical person on conception, fetal development and childbirth, how the environment affects the developing fetus, the importance of certain conditions and factors on the successful development of the fetus.

SUGGESTED EVALUATION ACTIVITIES

Classwork Performance

Panel Discussions/debates on points of view and beliefs concerning adolescent privileges and responsibilities.

Test and Inventories

Multiple choice tests and quizzes on knowledge and attitudes about human reproduction.

GENERALIZATION

(1) Ovulation is a necessary condition for fertilization and conception.

(2) Pregnancy, childbirth, and child dependency are natural events in human life.

(3) Growth patterns, as well as other human characteristics, are influenced by both heredity and environment.

MIDDLE FORM II

GENERAL OBJECTIVE

To help pupils become aware of the risks involved in adolescent sexual practices and pregnancy (early child-bearing).

SPECIFIC OBJECTIVE

At the completion of the module students will be able to 1. describe the significance of the puberty rites of at least one ethnic group in Ghana. 2. List three positive and three negative sanctions involved in puberty rites.
3. List and explain the hazards of sexually transmitted diseases.

(4) List the medical risks involved in adolescent pregnancy.

(5) Explain the impact of adolescent fertility (early childbearing) on a country's population.

(6) Evaluate the effect of the adverse emotional consequences of adolescent pregnancy on the adolescent.

(7) Give five results of the social and economic consequences of adolescent pregnancy and childbearing.

CONCEPT

Problems associated with adolescent sexuality and fertility.

SUB-CONCEPTS

(1) Significance of puberty rites in different ethnic groups in Ghana. (positive and negative sanctions for pre-pubertant pregnancies).

(2) Sexually transmitted diseases and hazards.

(3) Medical risks of early pregnancy.

(4) Demographic consequences of adolescent fertility.

(5) Emotional consequences of adolescent pregnancy (on adolescent, family members especially mothers)

(6) Social consequences of adolescent pregnancy (early childbearing.)

(7) Economic consequences of adolescent pregnancy, (early childbearing).

(8) Risks involved in forced marriages.

POSSIBLE SOURCES TO BE USED

(1) An elder from the community/someone who knows the traditions and culture of the community.

(2) A medical personnel.

(3) A demographer.

(4) A social worker.

(5) Books and journals e.g. population reports, physiology and Health science books.

(6) Films relevant to concept.

DOMAINS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

Health

Social studies (culture)

Sex education

SUGGESTED LEARNING ACTIVITIES

1. A student's account of her experience as a pubertant
2. A trip to observe performance of puberty rites.
3. Lectures and discussion by informed people on the different issues involved in adolescent pregnancy.
4. Film shows and discussions on adolescent pregnancy/young or adolescent mother.

5. Discuss/debate issues involving adolescent fertility.
6. Write individual reports on different issues involving adolescent pregnancy.

SUGGESTED EVALUATION ACTIVITIES

Classwork Performance

(1) Participation in discussions and debates

(2) Oral and Written reports (of assignments).

Tests and Inventories

(1) Students are asked to list and explain hazards involved in adolescent pregnancy, through multiple choice tests, quizzes.

(2) Summaries of views and beliefs concerning puberty rites, and adolescent pregnancy on class and bulletin boards.

GENERALIZATIONS

Pregnancy in adolescence poses a great danger to an immature mother and her child.

An adolescent, unmarried mother is likely to suffer emotional, social and economic adverse consequences.

MIDDLE FORM THREE

GENERAL OBJECTIVES

To provide a basic understanding of the concepts and dynamics of population processes and their consequences for the individual, family community, nation and the world.

To develop a basic understanding of the relationships between population and socio-economic development at both macro and micro levels.

SPECIFIC OBJECTIVES

At the completion of the module the students will be better able to:-

1. describe the basic demographic processes
2. List the determinants of population changes
3. describe the consequences of population changes.
4. describe the relationship between population and development.
5. Give two to four reasons why people migrate
6. Give reasons why a nation would encourage/discourage immigration.

CONCEPT:

Population, and Population Dynamics.

SUB CONCEPTS:

1. Population and size.
    i. Characteristics (what is population)
    ii. Birth (fertility)
    iii. Death (mortality)
2. Population change -
    i. Birth rate
    ii. Death rate
    iii. Migration
    iv. Life expertancy
3. Population composition
    i. Age
    ii. Sex
    iii. Education
    iv. Social, religions, cultural
4. Population Distribution
    i. Rural
    ii. Urban
    iii. Economic - income, occupation
5. Facts and figures about population of Ghana.
    i. Villages and towns - density
6. The role of migration.
    i. Villages to cities, vice versa causes and effects.

7. Contrast between developed and developing countries -

   1. The position of Ghana.

POSSIBLE SOURCES TO BE USED

1. Journals and books e.g. A source book for population education by African Social studies programme.
2. Population reports, social studies books.
3. Census data (Ghana)
4. A local expert in demography, Geography or Economics teacher in nearby secondary school.
5. Possible field trips to the Census office, well planned residential area, and slums.

DOMIANS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

1. Social studies
2. Economics

SUGGESTED LEARNING ACTIVITIES

1. Students group work to locate and record the population of e.g. their classroom, school, village or town.
2. Visit/invite birth and death registrar to talk and answer questions.
3. A demographer/Census expert to talk about the uses of censuses.

4. Debate/Discussion on rural - urban migration.
5. Design and produce bar-graph that compares the population of at least four local schools, neighbouring towns/villages, regions, Ghana and her neighbouring countries, and the continents.

SUGGESTED EVALUATION ACTIVITIES

Classwork Performance

Participation in discussions and debates. Oral and written reports on assigned population issues.

Tests and Inventories

Give four reasons for defending or rejecting the following statement: Ghana has vast tracts of uninhabited plains and forest therefore she does not need to control her population growth.

Multiple choice tests and quizzes on demographic terms.

Summaries of demographic facts and issues on bulletin board.

GENERALIZATIONS

1. The components of population growth are fertility, migration and mortality.
2. Population increases as more babies are born and decreases as more people die.

3. Every population occupies land, but some lands have more people living there than others.
4. Sometimes population increase leads to some problems in towns, cities and country.
5. Destructive forces in nature led to slow growth of population in the past.
6. Development in science and medicine has reduced incidence of deadly diseases and has led to more people staying alive and therefore increase in population.
7. Population growth, its determinants and consequences affect development - especially in the rural areas.

MIDDLE FORM III (CONTINUED)

GENERAL OBJECTIVE

To enable students to develop basic understanding of population characteristics and their relationship with family size and standard of living.

SPECIFIC OBJECTIVES

At the end of the module students will be able to.

1. Explain the adverse consequences of a high percentage of young people in a population.
2. List at least five consequences of rapid population growth.

3. List four ways in which family size affect the quality of life.
4. List five points in support of the small family norm.
5. Tabulate three criteria for comfortable living
6. Define zero population growth.
7. Name two possible effects of zero population growth on a nation.
8. Name five factors which influence one's standard of living.

CONCEPT:

Population characteristics and their relationship with family size and standard of living.

SUB CONCEPTS:

1. Age (Many young children, many retired people i.e. high dependency ratio, more productive; its effect on family).
2. Sex (Number of males/females and nature of employment and income and how it affects the family).
3. Activities: e.g. farming, industrial etc.
4. Family Size - family stability living standards, availability/unavailability of services, quality of life impact on country's population, labour force - availability/unavailability of jobs.
5. Rapid population growth and social problems (Slums, shortages in schools, teachers, Hospitals, housing,

transportation).

6. Rate of population growth and production (agriculture and industrial comparisons).
7. Zero population growth.

POSSIBLE SOURCES TO BE USED

1. A Home Scientist to talk.
2. Demographer/Social worker.
3. Books, Journals, pamphlets written papers on population and development.
4. Student's personal experiences.

DOMAINS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

1. Home Science
2. Social Studies
3. Agricultural Science.

SUGGESTED LEARNING ACTIVITIES

1. Discuss and identify services that a family needs.
2. Students study cartoons or charts about living standards of two families - small/large size and discuss, how living standard in large family can be improved.
3. Students prepare budgets for two families of different sizes small/large who earn the same income.
4. Discuss how families have different needs and why.
5. Visit well planned residential area/slum and report in class.

SUGGESTED EVALUATION ACTIVITIES

Classwork and Performance

Participation in class discussions debates, and oral reports.

Tests and Inventories

Students are asked to discuss how availability of 'goods' and 'services' can promote a better life in relation to housing, food and health services.

Multiple choice quizzes.

GENERALIZATIONS:

1. The size of a family affects its quality of life.
2. Quality of life refers to conditions of human existence, and is influenced by health, nutritional status, income educational level, housing and environment, level of possessions, use of leisure and social and political participation.
3. The age of a nation's population influences its production and use of resources.
4. Family size has a direct influence on the economic stability of a family.
5. The size of one's family affects the ways in which individual needs are met.
6. The standard of living is affected by the relationship between labour force and the jobs available.
7. Regulation of family size has a positive effect on population growth.

MIDDLE FORM IV

GENERAL OBJECTIVE:

To help students develop understandings and attitudes about population policies and programmes for social and economic development.

SPECIFIC OBJECTIVES:

At the completion of the module students will be able to

1. Form an individual population policy, (applicable on attainment of marriageable age).
2. Analyze and explain at least 3 different kinds of population policies, (i.e. individual policies, (family size) social customs and religious values, and national population policy).
3. Identify at least three factors on which Ghana's population policy is based.
4. Identify two population characteristics that have been directly or indirectly affected by the national population policy.
5. Identify two programmes implemented for social development.
6. Identify two programmes implemented for economic development.
7. Suggest a programme for social and economic development in his/her village or locality.

CONCEPT:

Population policies and programmes for social and economic development.

SUB-CONCEPTS:

1. What is a population policy? Components of a population policy.
2. Ghana's Population Policy.
3. Factors which have led to the development of the current population policy.
4. Different kinds of population policies - (increase, decrease, stabilize population size).
5. Development programmes in Ghana (Social - economic)
6. Family planning programme.
7. Purposes and resources of local family planning clinics, public and private.

POSSIBLE SOURCES TO BE USED.

1. Republic of Ghana, Population Planning for National Progress and Prosperity.
2. Ghana Population Policy.
3. Population Policies of other countries.
4. A resource - to talk on economic planning/rural development.
5. Family planning personnel.
6. Census data.

DOMAINS OF KNOWLEDGE WHICH COULD POSSIBLY BE RELEVANT

1. Social Studies
2. Economics.

SUGGESTED LEARNING ACTIVITIES

1. Discuss how individual decisions and social customs affecting family size result in population policy.
2. Discuss Ghana's Population Policy (a resource as a leader)
3. Discuss and analyse factors which have led to the statement of the policy.
4. Study population policies of other countries (developed, developing and underdeveloped) compare.
5. Discuss some government development programmes.
6. Talk and question time on Family Planning Programmes in the country.
7. Given a locality's size of population and resources, suggest some social and economic development programmes.

SUGGESTED EVALUATION ACTIVITIES

Classwork Performance

1. Participation in discussions.
2. Oral and written reports.

Tests and Inventories

1. Students to write about any two policies that have served to reduce morbidity and mortality.
2. Multiple choice quizzes on population policies and development programmes discussed in class.

GENERALIZATIONS:

(1) Individual population policies determining family size have always existed.

(2) The decision to plan or not to plan family size is an individual population policy that exists worldwide.

(3) Population education goals are essential to national population and development policies.

(4) National population policies are based upon a variety of factors.

(5) Social customs and religious values act as policies that influence family and population size.

(6) In some countries, family planning programmes have been developed and implemented.

D. DEVELOPING A TEACHING UNIT:

CONCEPT/TOPIC: Decision on family size affects the country's and world's population situation.

Group: Middle form 3. 14 - 15 years.

OBJECTIVE OF LESSON: To present the relationship between family size, family stability, and the country and world population.

BEHAVIOURAL OBJECTIVE: At the completion of the lesson unit, students will be able to give reasons based on the country's and world's population situation, and why it is desirable to have small families.

TIME: 35 - 40 MIUTES.

PREVIOUS KNOWLEDGE: Factors which affect population growth.

LEARNING ACTIVITIES

1. Discussion on selected issues in population as they affect family country and world.
2. Students calculate food needs of different sizes of family/individuals.
3. Students calculate estimated food needs of country and world population.
4. Students collect relevant articles from news papers and build a bulletin board.

EVALUATION:

(a) Post test or quiz five to ten items.

(b) Give three reasons why it is desirable to have small families.

(c) Assignment: Students calculate expenditure for three different sizes of families, earning the same income and report in class - e.g. of items; food, education, health, transport, clothing, rent etc.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Population education in Ghana traditionally, tended to emphasize sex education. With the gradual break down of the traditional rural order, the traditional mechanisms of family life education have either broken down or are being ignored. It is therefore necessary that the school takes over these duties.

Attention has been drawn to the fact that prolific child bearing which was highly commended in traditional society is no longer consistent with the needs of modern society. For the government to be able to achieve economic development, the quality of life of its people must be improved. It is therefore necessary that all sections of the population are made aware of the factors which are likely to impede the successful achievement of this basic objective.

Many countries and organizations have made appreciable efforts through population education to educate the young as well as the old, to appreciate the problems of over population.

In Ghana attempts have been made by many organizations, christian, educational, civil to educate the public and students. However the content of many of these courses are all family life education components or family life education

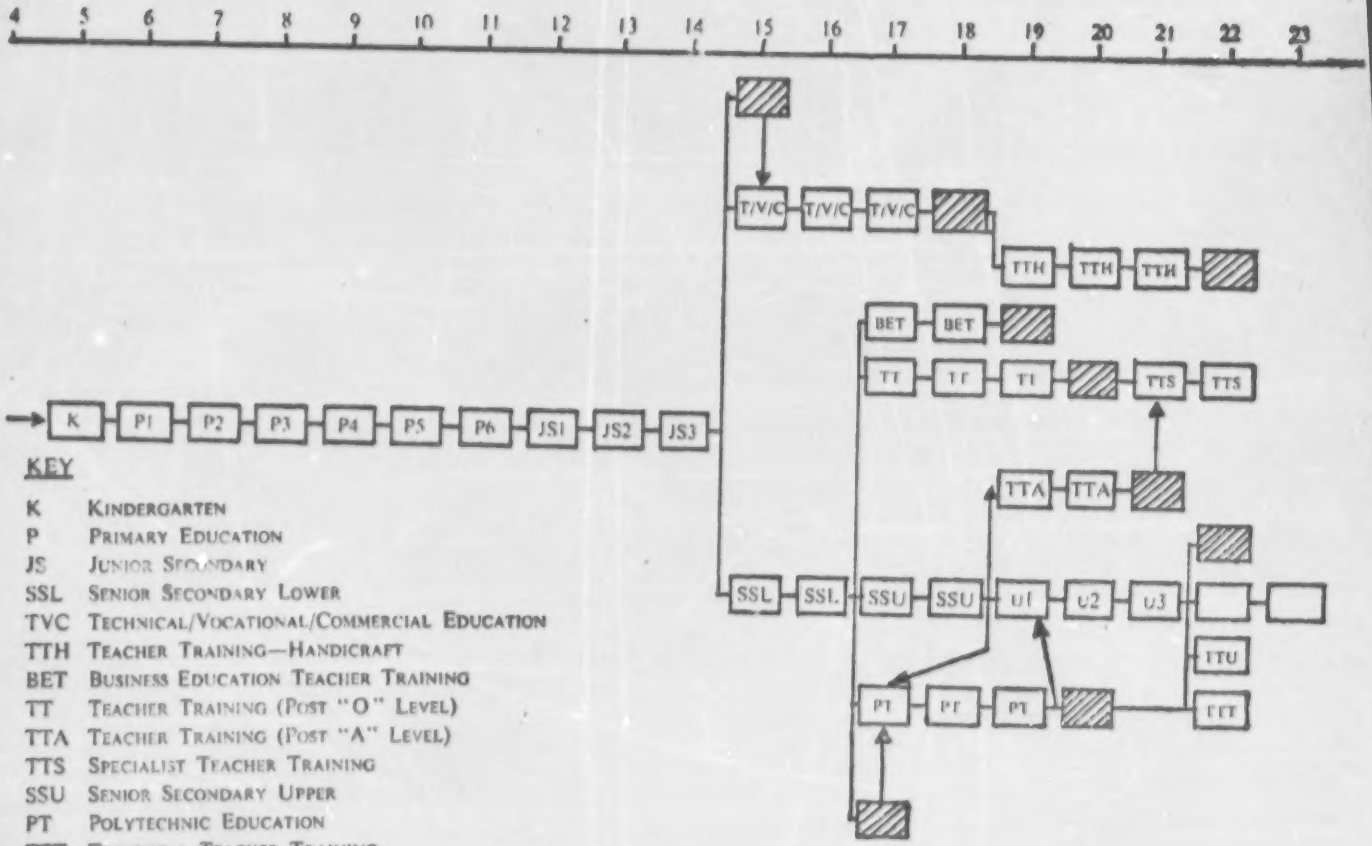
with very few population components, which in the formal school system serves students in the second cycle institutions.

This project therefore aims at preparing a comprehensive population education curriculum for students in the first cycle institutions who are also in their early adolescence, experiencing the maturation processes, and for most of whom basic education or first cycle education is terminal. Most of these students would enter marriage very early and have long fertile years. It is hoped that if this population education programme is adopted, it will help create awareness among the future parents who if properly oriented would be aware of the hazards of adolescent childbearing and its effect on quality of life as well as the socio-economic and political development of a country.

The introduction of population education into the formal school curriculum, starting with the elementary schools should not be a serious policy problem. Already family life education with a few population components are on trial in the second cycle institutions.

The understanding that population education is the school's counterpart of family planning which is aimed at improving the quality of life, tends to emphasize the importance of introducing population education to enable the future generation and parents to improve their quality of life.

NEW STRUCTURE OF EDUCATION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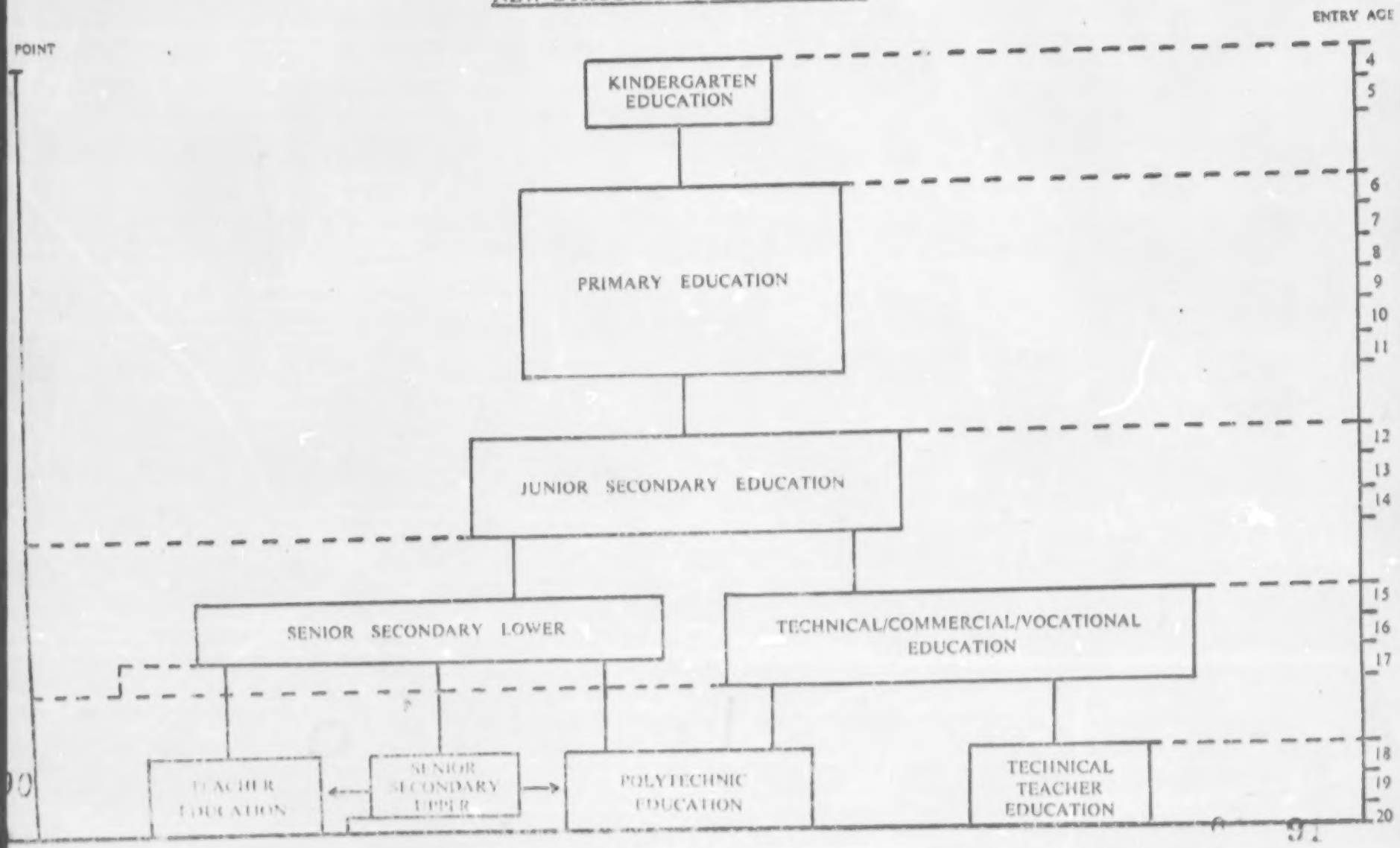
KEY

K	KINDERGARTEN
P	PRIMARY EDUCATION
JS	JUNIOR SECONDARY
SSL	SENIOR SECONDARY LOWER
TVC	TECHNICAL/VOCATIONAL/COMMERCIAL EDUCATION
TTH	TEACHER TRAINING—HANDICRAFT
BET	BUSINESS EDUCATION TEACHER TRAINING
TT	TEACHER TRAINING (POST "O" LEVEL)
TTA	TEACHER TRAINING (POST "A" LEVEL)
TTS	SPECIALIST TEACHER TRAINING
SSU	SENIOR SECONDARY UPPER
PT	POLYTECHNIC EDUCATION
TTT	TECHNICAL TEACHER TRAINING
TTU	TEACHER TRAINING IN UNIVERSITY
U	UNIVERSITY
	EMPLOYMENT

APPENDIX 2

NEW STRUCTURE OF EDUCATION



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